

# BEST AVAILABLE COPY

What is claimed is:

*Sub A<sub>6</sub>* →

1. A method for forming a coating film, comprising the following steps:

applying a raw material of a low dielectric constant onto a surface of a plate-like material to be treated such as a semiconductor wafer and a glass substrate;

5 reducing the oxygen concentration in the atmosphere to be less than or equal to 1% before the surface temperature of said plate-like material to be treated rises to 200°C; thereafter

heating said plate-like material to be treated to be greater than or equal to 400°C while maintaining the oxygen concentration in the atmosphere to be less than or equal to

10 1%; and then

maintaining the oxygen concentration in the atmosphere to be less than or equal to 1% until the surface temperature of said plate-like material to be treated lowers to 200°C.

*A*

2. A method for forming a coating film as defined in claim 1, wherein the oxygen concentration in the atmosphere is lowered to be less than or equal to 1% by purging <sup>WITH</sup> *N<sub>2</sub>* gas.

*Sub A<sub>7</sub>* →

3. A method for forming a coating film as defined in claim 1, wherein said method is conducted in one baking furnace, in the upper portion of which is positioned a hot plate, while in the lower portion of which is positioned a cool plate, in which said plate-like material to be treated comes close to either one of said hot plate and said cool plate selectively by means of an elevator means.

4. A method for forming a coating film as defined in any one of claims 1 through

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3, wherein said method is applied to a forming of an interlayer insulation film by a damascene method.

ADD A<sub>8</sub>

ADD B<sub>7</sub> >

ADD C<sub>4</sub> >